

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT :           WITTEVEEN et al.                   EXAMINER: SHOMER, ISSAC  
SERIAL NO. :           10/591,570                   ART UNIT : 1612  
FILED :                April 26, 2007                   CONFIRM NO.: 6231  
FOR                    PARTICULATE FLAVORING COMPOSITION

March 18, 2011

**BRIEF ON APPEAL**

Mail Stop – Board of Patent Appeals and Interferences  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In response to the Office Action of October 21, 2010, the claims having been twice rejected, a Notice of Appeal was filed on January 20, 2011. Appellant submits herewith a Brief on Appeal in support of an appeal of the rejection of claims 21 – 37 by the Examiner.

Please charge the fee for filing the Brief on Appeal for a large entity of \$540.00 to our Deposit Account No. 01-0035.

The USPTO is authorized to charge any additional fees which may be required or credit any overpayment to Deposit Account No. 01-0035.

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(i.) REAL PARTY IN INTEREST

Quest International B.V. is the real party in interest.

(ii.) RELATED APPEALS AND INTERFERENCES

There are no related appeals and interferences.

(iii.) STATUS OF CLAIMS

The claims pending in the Application are 21-37.

Claims 21 – 25 and 27 – 37 stand rejected under 35 USC §103(a).

Claims 26 stands rejected under 35 USC §103(a).

(iv.) STATUS OF AMENDMENTS

Claims 21-37 were finally rejected by the October 21, 2010 Office Action after the Response filed August 27, 2010.

(v.) SUMMARY OF THE CLAIMED SUBJECT MATTER

When reference is made hereinafter to pages and lines of the publication, it is to Publication No. US 2007/0274930 A1.

Independent claim 21 recites controlled release particles wherein discrete element of flavouring-containing fat are dispersed in a gelatine matrix containing [0024]

0.1-40 wt% of flavouring [0025],

10-70 wt%, of gelatine [0026],

0.1 – 75 wt% of fat [0027] selected from triglycerides, sucrose polyesters of fatty acids and combinations thereof [0037], the fat having a melting point of at least 35° [0027] and [0037];

0.1-10 wt% of film forming carbohydrate [0045] selected from the group consisting of gums, modified starches, cellulose derivates and mixtures thereof [0045];

1-30 wt% of carbohydrate plugging material selected from the group consisting of mono-, di- and trisaccharides and mixtures thereof [0046]; and

said particles having a volume weighted average diameter of 50-100µm [0044].

Dependent claim 22 recites a composition wherein at least 90% of the flavouring is dissolved or dispersed homogeneously in the discrete fat elements. [0038].

Dependent claim 23 recites a composition where the carbohydrate plugging material is selected from glucose, fructose, maltose, sucrose, raffinose, xylitol, sorbitol and mixtures thereof [0046].

Dependent claim 24 recites that the gelatine has a bloom value of 10-300 [0036].

Dependent claim 25 recites that the fat has a melting point of at least 38°C. [0037].

Dependent claim 26 recites that the flavouring is selected from methol, mint, eucalyptus and mixtures thereof [0035].

Dependent claim 27 recites that the composition includes at least 50wt% of the controlled release particles [0043].

Dependent claim 28 recites that the flavouring and fat within the controlled release particles are present as discrete elements are entrapped within a matrix containing the gelatine [0038].

Dependent claim 29 recites that the combination of flavouring, gelatine, fat film forming carbohydrate and plugging material constitution at least 70wt% of the composition [0049].\

Dependent claim 30 recites that the controlled release particles are obtained by extrusion or spray drying of a solution or dispersion which includes flavouring, gelatine, fat, film forming carbohydrate, plugging material and a solvent or be fluidized bed coating of core particles with the solution or dispersion [0051].

Dependent claim 31 recites that the controlled release particles include an outer coating layer containing at least 50wt% of a hydrocolloid selected from polysaccharides, zein, shellac, cellulose derivatives and combinations thereof [0056].

Dependent claim 32 recites  $(\text{Bloom number}/150) + (\text{wt\% gelatine}/30) * (\text{wt\%fat}/10) < 1$  [0054] [0059].

Dependent claim 34 recites a flavour delivery system which includes 5-70wt% of the composition of claim 22 and 5-70wt% of a carbohydrate plugging material selected from glucose, fructose, maltose, sucrose, raffinose, xylitol, sorbitol and mixtures thereof [0059].

Dependent claim 35 recites a flavour delivery system which includes 5-7wt% of a composition of claim 22 and 5-70wt% of liquid flavour [0059].

Dependent claim 36 recites a process for importing controlled flavour release to chewing gum [0060], [0061] and [0062] or toothpaste [0063] and [0064] by incorporating the composition of claim 21 on a flavour delivery system which has a Bloom value of 10-300 [0036] or the fat has a melting point of at least 38°C [0037].

Dependent claim 37 recites a chewing gum or a toothpaste which contains 0.01-6wt% of the composition of claim 21 or of a flavour delivery system with a bloom value of [0064] 10-30 [0036] or the fat has a melting point of at least 38°C [0037].



(vi.) GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

1. Claims 21-25 and 27-37 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Skelbaek et al. (WO 91/17821).
2. Claim 26 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Skelbaek et al. (WO 91/17821) as applied to claims 21-25 and 27-37, and further in view of Venema et al. (EP 0839516 A1).

(vii.) ARGUMENT

1. Rejection of Claims 21-25 and 27-37 Under 35 U.S.C. §103(a) as being obvious over Skelbaek et al. (WO01/17821)

In independent claim 21, the particles recited in Appellants claimed composition consist of a gelatine matrix in which are dispersed discrete elements of flavour-containing fat. There is no teaching, disclosure or even a suggestion in Skelbaek of any such particle.

Skelbaek teaches *microparticles that contain gelatine and a flavouring agent* and is concerned with the oxygen and moisture stability of these microparticles. One of ordinary skill in the art is taught by Skelbaek that in order to solve the problems of stability, he or she address the porosity of the formed particles. Skelbaek is said to solve the problem of porosity by the use of a special process step in a spray drying process. In addition, one of ordinary skill in the art is also taught that controlled release can be achieved by the use of a wax. The foregoing is the sum and substance of Skelbaek's teaching. If one of ordinary skill in the art were faced with the problem of achieving stability, he or she is taught by Skelbaek to reduce the porosity of the particles by employing spraying at a low temperature in a spray drying process.

Claim 21 herein recites that Appellant's composition employs a particular group of fats, namely, one selected from among triglycerides and sucrose polyesters of fatty acids and combinations thereof. Still further, the claim recites that among the aforementioned group of fats, they must have a melting point of at least 35°C.

Skelbaek's teaching of wax entrained in a matrix, would not lead one of ordinary skill in the art to employ one of the claimed fats which has a melting point of 35°C or greater.

At page 3 of the Office Action of October 21, 2010, the Examiner, in fashioning his final rejection, maintains that Appellant's contend that a spraying agent is not really part of a matrix and that he (the Examiner) is unaware of any basis for this contention.

Most respectfully, Appellants are not making any such argument. Presumably, the spraying agent coats the particles, but this is irrelevant. What is abundantly clear, however, is the fact that the spraying agent is *not flavour-containing* and so the carrying-out of the process

in Example 4 of Skelbaek *will not result* in a particle consisting of a matrix containing discrete elements of flavour-containing spraying agent. The flavour is entrained in wax particles in a gelatine matrix.

Thereafter, also at page 3 of the Office Action, the Examiner goes on to state as follows:

“Furthermore, the claims do not require that a triglyceride (or sucrose polyester of a fatty acid) be dispersed in a gelatine matrix. The claims require the presence of a triglyceride or sucrose polyester, as well as a fat in a gelatine matrix, but do not require that the dispersed fat is a sucrose polyester of a fatty acid.”

Appellants simply cannot fathom the Examiner’s foregoing construction of claim 21. It is clearly an unreasonable construction, and, quite simply, represents a tortured reading of the claim, rather than the straightforward reading which is warranted and to which it is entitled.

To place claim 21 in its proper perspective, it recites a particulate composition and clearly states that in those particles the flavour-containing fat is provided as discrete elements dispersed in a gelatine matrix. The claim further recites that the particles contain 0.1% to 75% fat. The 0.1% to 75% clearly refers to the flavour-containing fat mentioned previously. It most certainly **does not refer to some other fat**, in addition to the fat in the discrete elements.

Also at page 3, the Examiner states that he “disagrees with applicant’s contention that the spraying agent would not have been dispersed in the particles.” Appellant’s, however, are not making any such contention. Rather, it is Appellants’ view that while, perhaps, some of the spraying agent will be dispersed in the matrix, it is, in fact, much more likely that it will coat the matrix. The point which Appellants are making is that *the wax contains the flavour*, and any of **the spraying agent** that might become dispersed in the matrix is not flavour-containing **spraying agent**.

At page 5 of the Office Action of October 21, 2010, the Examiner raises the issue of the “statistical significance” of the data presented in Appellants’ examples. It is simply not understood why the Examiner chooses to question the veracity of the data presented. It is clearly stated in Example 1, [0070], “...it was shown that compared with the controlled release particles according to WO 91/17821, significantly higher flavour strength was experienced when the particulate composition according to the present invention was used.”

If Appellants maintain that the results are significant, this means that the differences in intensity are real and perceivable. If the Examiner has a legitimate basis for questioning the “statistical significance” of Appellants results, he should set forth his basis clearly and completely to allow Appellants the opportunity to respond. Otherwise, an Examiner’s ruminations and reflections which are not anchored in fact are not properly a part of the record herein.

The Examiner goes on to take issue with the length of time the flavour intensity was measured. Specifically, the Examiner states, “[y]et flavour intensity was measured for only 210 seconds (3 minutes and 30 seconds), and the data does not show what happened beyond that length of time”.

It is respectfully submitted that when an individual chews gum, he experiences a high level of flavour intensity, initially, and for that flavour to last for 2 or 3 minutes before the intensity of the flavour diminishes. Appellants do not understand what significance the Examiner attaches to the period after 3 minutes and 30 seconds. If Appellants have shown an improvement from initial chewing until 3 minutes, 30 seconds, isn’t that enough of an improvement for chewing gum. Fig. 1 of the specification shows that after 2 minutes, 30 seconds all of the samples begin to diminish in their intensity. What probative value does the Examiner see in extending the test for, say, 10 minutes. Appellants, quite frankly, see no value whatever in that regard.

In sum, the Examiner has erred in his understanding/construction of claim 21 with respect to the flavour-containing fats being provided as discrete elements in a gelatine matrix. Further, in Skelbaek, there is no teaching, suggestion or motivation of employing triglycerides or sucrose polyesters of fatty acids as recited in claim 21. (This element is completely missing from the disclosure of Skelbaek.) Still further, Appellants in the as-filed specification presented objective evidence of longer-lasting flavour of the claimed composition, when compared to Skelbaek’s composition. Quite simply, Skelbaek’s teachings do not serve to render the claimed invention obvious under any of the rationales set forth in *KSR v. Teleflex*, 127 S.Ct. 1727, 1741 (2007).

It is abundantly clear from the foregoing, the since independent claim 1, as well as the claims dependent thereon, claims 22-37, distinguishes over the teaching of Skelbaek by a

preponderance of the evidence, the rejection under §103(a) has been overcome and the Examiner should be reversed.

2. Rejection of Claim 26 Under 35 U.S.C. §103(a) as being obvious over Skelbaek et al. (WO01/17821) as applied to claims 21-25 and 27-37 and further in view of Venema et al. (EP 0839516 A1)

Since independent claim 21 distinguishes over the teaching of Skelbaek, as discussed, the secondary reference of Venema cannot be said to render claim 26, which depends from claim 21, obvious since it includes all of the limitations of claim 21. Accordingly, since claim 26 distinguishes over the teaching of the combinations of references by a preponderance of the evidence, the rejection under § 103(a) has been overcome and the reversal of the Examiner's rejection is solicited.


### CONCLUSION

Reversal of the 35 U.S.C. § 103(a) rejections based on the arguments set forth herein is respectfully requested.

Respectfully submitted,

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(viii). CLAIMS APPENDIX

1-20. (Cancelled)

21. (Previously presented) A particulate composition comprising controlled release particles wherein discrete elements of flavouring-containing fat are dispersed in a gelatine matrix, said particles containing:

0.1-40 wt% of flavouring;

10-70 wt%, of gelatine;

0.1-75 wt% of fat selected from triglycerides, sucrose polyesters of fatty acids and combinations thereof, the fat having a melting point of at least 35°C;

0.1-10 wt% of film forming carbohydrate selected from the group consisting of gums, modified starches, cellulose derivatives and mixtures thereof; and

1-30 wt% of carbohydrate plugging material selected from the group consisting of mono-, di- and trisaccharides and mixtures thereof; and

said particles having a volume weighted average diameter of 50 – 1500 µm.

22. (Previously presented) Composition according to claim 21, wherein at least 90 % of the flavouring is dissolved or dispersed homogeneously in the discrete fat elements.

23. (Previously presented) Composition according to claim 21, wherein the carbohydrate plugging material is selected from the group of glucose, fructose, maltose, sucrose, raffinose, xylitol, sorbitol and mixtures thereof.

24. (Previously presented) Composition according to claim 21, wherein the gelatine has a bloom value of 10-300.

25. (Previously presented) Composition according to claim 21, wherein the fat has a melting point of at least 38°C.

26. (Previously presented) Composition according to claim 21, wherein the flavouring is selected from the group consisting of menthol flavouring, mint flavouring, eucalyptus flavouring and mixtures thereof.
27. (Previously presented) Composition according to claim 21, wherein the composition comprises at least 50 wt% of the controlled release particles.
28. (Previously presented) Composition according to claim 21, wherein the flavouring and fat contained within the controlled release particles are present as discrete elements that are entrapped within a matrix containing the gelatine.
29. (Previously presented) Composition according to claim 21, wherein the combination of flavouring, gelatine, fat, film forming carbohydrate and plugging material constitutes at least 70 wt% of the particulate composition.
30. (Previously presented) Composition according to claim 21, wherein the controlled release particles are obtainable by extrusion or spray drying of a solution or dispersion comprising flavouring, gelatine, fat, film forming carbohydrate, plugging material and a solvent or by fluidized bed coating of core particles with said solution or dispersion.
31. (Previously presented) Composition according to claim 21, wherein the controlled release particles comprise an outer coating layer containing at least 50 wt% of a hydrocolloid selected from the group consisting of polysaccharides, zein, shellac, cellulose derivatives and combinations thereof.
32. (Previously presented) Composition according to claim 21, wherein:  
$$((\text{Bloom number}/150) + (\text{wt\% gelatine}/30)) * (\text{wt\% fat}/10) \geq 1$$
33. (Previously presented) Composition according to claim 21, wherein:  
$$((\text{Bloom number}/150) + (\text{wt\% gelatine}/30)) * (\text{wt\% fat}/10) \leq 1$$
34. (Previously presented) Flavour delivery system, comprising 5-70 wt% of a composition according to claim 22 and 5-70 wt% of a composition consisting of a carbohydrate plugging

material selected from the group consisting of glucose, fructose, maltose, sucrose, raffinose, xylitol, sorbitol and mixtures thereof.

35. (Previously presented) Flavour delivery system, comprising 5-70 wt% of a composition according to claim 22 and 5-70 wt% of liquid flavour.

36. (Currently amended) A process for imparting controlled flavour release characteristics to chewing gum or toothpaste which comprises incorporating ~~Use of~~ a particulate composition according to claim 21 or of a flavour delivery system wherein the gelatine has a bloom value of 10-300 or the fat has a melting point of at least 38°C ~~for imparting controlled flavour release characteristics to chewing gum or toothpaste.~~

37. (Previously presented) Chewing gum or toothpaste comprising 0.01-6 wt% of a particulate composition according to claim 21 or of a flavour delivery system wherein the gelatine has a bloom value of 10-300 or the fat has a melting point of at least 38°C.



ix. EVIDENCE APPENDIX

None.

x. RELATED PROCEEDINGS APPENDIX

None